



Class and Disordered Speech in the Mentally Ill

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Preliminary findings reveal the following:

1. There is greater frequency of reported cancer symptoms among women than among men.
2. No sex difference in delay is observed in seeking care for these symptoms.
3. In general, delay in seeking medical care is a function of decreasing socioeconomic status, but this relationship is more pronounced in the case of cancer symptoms.
4. Per capita income reveals a variable relationship to delay; least delay occurs in the extreme upper and lower income groups while most delay occurs in groups in "marginally low" and "marginally high" income categories.
5. General education bears a slight negative relationship to delay in caring for general medical symptoms.

6. A much more striking relationship is revealed between education and delay in seeking care for the symptoms of cancer. Delay is clearly associated with minimal educational attainment.

7. Those possessing least knowledge of cancer tend to greatest delay in responding to the "7 danger signals" of cancer.

It is concluded that patterns of promptness and delay in seeking care for cancer appear to be dependent upon certain sociological, demographic, and psychological factors differing in nature from those involved in responding to other symptoms. Future reports emanating from this investigation will attempt to shed further light on additional factors which may contribute to an understanding of the dynamics of delay in cancer.

CLASS AND DISORDERED SPEECH IN THE MENTALLY ILL*

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THE PROBLEM

Anthropologists and sociologists have been concerned for many years with the functions of communication in human societies.¹ In recent years a few psychiatrists² have become interested in the problem of interrelations between communication, the social system, and mental illnesses.³ This paper reports data that bear directly on class sta-

tus and the communication of ideas by mentally ill persons.

In everyday life we expect others to communicate with us in ways that are meaningful. When a person repeatedly utters statements that are unrelated to what is ex-

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1. Edward Sapir, "The Status of Linguistics as a Science," in D. G. Mandelbaum (Ed.) *Selected Writings in Language, Culture, and Personality* (Berkeley, California: University of California Press, 1949), pp. 160-162; C. Wright Mills, "Language, Logic, and Culture," *American Sociological Review*, 4 (1939), 670-680.

2. Jurgen Ruesch and Gregory Bateson, *Communication: The Social Matrix of Psychiatry* (New York: W. W. Norton and Company, 1959), especially pp. 50-93.

3. Jerome K. Myers and Leslie Schaffer, "Social Stratification and Psychiatric Practice; A Study of an Out-Patient Clinic," *American Sociological Review*, 19 (1954), 307-310; August B. Hollingshead and Fredrick C. Redlich, *Social Class and Mental Illness* (New York: John Wiley and Sons, 1958), pp. 338-339.

pected or permitted in social situations, a gulf is created between him and others.⁴ An initial break in communication, unless corrected, may lead to alienation from one's associates. The alienation process once begun may go on to the point where an individual, though physically surrounded by other persons, may be psychologically and socially isolated from them.

The importance of speech in maintaining primary group relations came to our attention during the early phases of a study we are making in Puerto Rico. In this study we interviewed two series of persons. One is a probability sample of persons living in the metropolitan area of San Juan. The other is composed of individuals, and members of their households, who have solicited care at two psychiatric agencies in the San Juan metropolitan area. Individuals who have solicited care at the two psychiatric agencies are interviewed to determine their suitability for inclusion in an intensive control case study. This study requires repeated and prolonged interviews. In anticipation of problems connected with repeated interviews with psychotic persons, we instructed our field workers to note if the speech of the solicitors, who were being screened for possible inclusion in the intensive study, was sufficiently clear to allow us to interview them over a prolonged period. The field workers, who are all Puerto Ricans, have had extensive experience interviewing in the homes of their countrymen. All of the interviews were conducted in Spanish, the native language of the interviewers and the respondents. This point is important, because we are concerned with clarity of verbal communication between the interviewers, the solicitors, and the members of the solicitors' immediate families. Each judgment as to whether or not a solicitor was able to communicate meaningfully was based upon field observations. When the field workers were able to

talk with a solicitor, they could make a direct evaluation. When they could not, an indirect evaluation was made. We will give examples of direct and indirect evaluation of evidence gathered in interviews. First, are some illustrations of direct evaluation.

An illiterate 79-year-old widow, living in a public housing apartment constructed by the government to eradicate slums, was described to us by her daughter as a "cruel woman whom no one could understand." This elderly woman made periodic efforts to tie her daughter with rope in response to alleged insults she claimed the daughter heaped upon her. The old woman repeatedly informed others that there were persons in the neighborhood who were conspiring to force her into prostitution. Her typical replies to the questions we asked were insults and abuse. The interviewer, as well as members of this woman's family, judged her speech to be incoherent.

Second, a 39-year-old female, with a third-grade education, married to an unskilled worker who had never gone to school, informed us, in the presence of her husband, that she was married to a colonel, who, she claimed, frequently came to visit her. Later in the interview she said that she was separated from her true husband. The man with whom she lives is her husband, but she does not believe this.

Third, a 29-year-old single male, with a third-grade education, was observed by our field workers meandering aimlessly, as he babbled to himself, in the vicinity of an aunt's dwelling. His aunt informed us that he did not know where he was. When we asked him who and where he was, he replied with an outburst of accusations against us, the government, and fate.

In each of these examples the field worker was able directly to observe the speech and behavior of the sick person. Evaluation of communicative difficulties by indirect evidence was resorted to when we were not able to interview a solicitor because of his absence when the field worker made her visits. Then, we relied upon the statements of close relatives. Our indirect judgments regarding incoherent speech were based upon such statements as:

4. For an extended discussion of the problems of communication of the mentally ill see Rose Spiegel, "Specific Problems of Communication in Psychiatric Conditions," in Silvano Arieti (Ed.) *American Handbook of Psychiatry*, Volume I (New York: Basic Books, Inc., 1959); also see Silvano Arieti, *Interpretation of Schizophrenia* (New York: Brunner, 1955).

He goes around the house continually reciting the names of fighting cocks. While he does this, he reminds others that the walls of the house will be torn down and rebuilt.

You talk to him and he cannot tell you who he is. He misnames his own sons, for he does not recognize them.

He thinks and acts as if he were a millionaire. He goes around telling people about his wealth.

Though the words and sentences of such statements are understandable, they are incongruous in normal social intercourse. Their repeated expression disrupts interpersonal communication. They make the person conspicuous to others and enigmatic to even his closest associates. Such individuals generally react to questions or verbal cues in enigmatic ways. They say nothing when they are expected to say something or they utter something inappropriate to the situation. They are, in Cameron's phrase, "socially disarticulated."⁵ For present purposes, we shall refer to the speech patterns of persons who are "socially disarticulated" as incoherent. We are using the term "incoherent" in a sense closely akin to Bleuler's concept of "autism." That is, incoherent speech is a sign of "detachment from reality, together with the relative and absolute predominance of the inner life. . . ."⁶ Speech that fits into the context of a social situation is judged to be coherent. Disarticulated speech is judged to be incoherent for our purposes.

Clarity in communication is probably a product of many interacting factors which range from those that are idiosyncratic in character to those that are an expression of collective, commonly held meanings. As students of social stratification and mental illness, we became interested in the course of our research in the possibility that mentally ill persons who are incoherent in their verbal statements are disproportionately con-

centrated in the lowest class, in comparison with persons in a higher class. This paper explores this possible association in a group of persons who had been referred to, or had solicited, psychiatric care in the San Juan metropolitan area of Puerto Rico.

THE DATA AND PRELIMINARY FINDINGS

Our analysis is based on information collected from the field interviews, mentioned previously, and on information collected from the psychiatric records of the solicitants. Three hundred three interviews were completed with persons who had solicited psychiatric aid during a one-year period starting in May, 1958. A systematic search of the psychiatric records of these solicitants enabled us to secure psychiatric diagnoses on 257 patients who were provided out-patient care. The other 46 solicitants either did not meet their clinical appointments or, if they did, they were not diagnosed.

Each solicitor was stratified by the use of Hollingshead's *Two Factor Index of Social Position*. This *Index* uses occupation of the head of the household and the years of school completed by the head of the household as indicators of class position for the members of the household. Each of these factors is scaled on a seven-point scale. The scale scores are weighted as follows: occupation is given a factor weight of 7, and education is given a factor weight of 4. The factor weights for occupation and education were determined by multiple correlations and regression techniques.⁷

To calculate the *Index of Social Position* score for the head of a household, the scale value for *Occupation* is multiplied by the factor weight for *Occupation*, (7), and the scale value for *Education* is multiplied by the factor weight for *Education*, (4). These scores are summed. The resulting scores range from a low of 11 to a high of 77. These scores are relied upon to determine

5. Norman Cameron, "The Paranoid Pseudo-Community," *American Journal of Sociology*, XLIX (1943), 32-38; "The Paranoid Pseudo-Community Revisited," *American Journal of Sociology*, LXV (1959), 52-58.

6. Eugen Bleuler, *Dementia Praecox or the Group of Schizophrenias* (New York: International Universities Press, 1950), p. 63.

7. August B. Hollingshead, *Two Factor Index of Social Position*, New Haven, Connecticut, 1957, privately printed.

the social class position of the individual members of households.⁸

The result of placing the 303 solicitants for psychiatric care in social classes by means of Hollingshead's index may be seen in Table 1.

Table 1
Distribution of Solicitants for Psychiatric Care
by Classes

Class	Number	Proportion
I	1	.0033
II	7	.0231
III	17	.0561
IV	70	.2310
V	208	.6865
Total	303	1.0000

The distribution by class, shown in Table 1, reveals that the psychiatric agencies where we found our cases provide service for lower status persons, for the most part. The fact that almost 70 per cent of the patients come from Class V limits the analysis of the data. Because of the small numbers of solicitants we cannot study the three higher classes as separate groups. Neither do we want to consider the four higher classes as one group. We chose to study Class IV in comparison with Class V and to disregard the 25 patients remaining in the three higher classes.

Classes IV and V constitute the independent factors in our analysis. Each of these classes is characterized by a distinct socio-cultural matrix. To illustrate this point, we shall cite selected figures from the probability sample of households mentioned earlier. This sample was designed by the Department of Labor of Puerto Rico. Checks have shown that it is a good representative sam-

8. Forty-seven per cent of the solicitants were heads of households, and 53 per cent were not heads of households. This means that the *Index of Social Position* scores were computed directly on 47 per cent of the persons studied; in the remainder we derived their class position from the head of the household in which they lived. In practically all cases the solicitor who was not a head of household was a spouse, a child, or a parent of the head of the household. We tested the hypothesis that coherence or incoherence in communication might be related to the position of the solicitor in the household. No relationship was found. Therefore, we have combined the solicitants who are not heads of households with those who are heads of households.

ple of the population of the area. The 1,144 households in this sample were stratified also by use of Hollingshead's *Two Factor Index of Social Position*. For purposes of this paper, we shall illustrate cultural and social differences between Classes IV and V with five items: (1) the occupations followed by the heads of households; (2) the years of school they had completed; (3) the median weekly income of the family; (4) the place of the household's residence; and (5) the head's marital status. The pertinent data on each of these items are summarized in Table 2.

Table 2

Percentage Distribution of Heads of Households of
Selected Cultural Characteristics in Classes IV and
V in the San Juan Metropolitan Area

Cultural Characteristics	Per Cent in Class	
	IV (N:244)	V (N:667)
1. <i>Occupation</i>		
Owners of small businesses	10	6
Skilled, white and semi-white collar employees	37	1
Skilled, blue collar employees	28	14
Semi-skilled, blue collar employees	19	21
Unskilled employees	6	35
Unemployed workers	—	23
2. <i>Years of School Completed</i>		
None	2	22
1-6	12	61
7-9	41	13
10-12	45	4
3. <i>Median Weekly Income</i>	\$54.55	\$30.01
4. <i>Place of Household Residence</i>		
Small hill plot	8	22
Urban residential, private	60	19
Urban slum	22	38
Urban public housing	7	12
Suburban public land allotment	3	9
5. <i>Marital Status</i>		
Married, civil or religious	73	54
Married, common law	8	19
Unmarried	6	4
Divorced	5	3
Separated	4	8
Widowed	4	12

When the figures on each of the five items presented here are compared for the strata under discussion, namely, Classes IV and V, the reader can see that there are marked differences in the two categories delineated by Hollingshead's *Index of Social Position*.

The implications of these differences should become clear when we present the data on coherence and incoherence among the 278 solicitants for psychiatric care who came from these two classes.

ANALYSIS OF THE DATA

Our first analytical step is to determine if there is an association between clarity in communication and the kinds of diagnoses the psychiatrists made of the patients' illnesses.⁹ For our purposes the patients were divided into two diagnostic groups: those who are schizophrenic and those who are not schizophrenic. Table 3 shows the distribution of persons suffering from schizophrenia, on the one hand, and those not having schizophrenia, on the other hand, categorized by whether they were coherent or incoherent in their verbal communications with the field workers and/or families.

Table 3

Percentage of Solicitants Judged to be Coherent or Incoherent in Communication by Diagnostic Category

Communication	*Not		Total (N:238)
	Schizophrenic (N:90)	Schizophrenic (N:148)	
Coherent	55.6	73.0	66.4
Incoherent	44.4	27.0	33.6
Chi square 7.6085 (d.f. 1; $P < .01$)			

*Not schizophrenic: manic depressives; acute and chronic brain syndromes; psychophysiologic; psychoneurosis; mental deficiency; personality disorders; epileptics.

Table 3 shows that the schizophrenics are less coherent in their communication in comparison with those who do not have schizophrenia.¹⁰ This finding indicates that our assessment of coherence in communication is involved with the psychiatric diagnoses. Therefore, in later analyses we shall control for diagnosis when the assumed relationship between social class and clarity in communication is examined.

9. We secured the psychiatric diagnoses of 238 solicitants in Classes IV and V. See Table 2.

10. Our criterion of significance is set at the 5 per cent level or less.

We made a test to see if there is a significant relationship between social class and clarity in communication as illustrated in Table 4. Thirty-three per cent of the solicitants were judged to be incoherent in communication with their families or the field workers. This suggests that problems of communication are common among solicitants for psychiatric aid. More important for our purposes, however, is the finding that a relationship exists between class position and coherence or incoherence in verbal statements. It is interesting that in Class IV nine out of ten solicitants are judged to be coherent in their statements, whereas among the Class V's only about six out of ten are viewed as being able to communicate with some clarity.

Table 4

Percentage of Solicitants Judged to be Coherent or Incoherent in Communication by Class

Communication	Class		Totals (N:278)
	IV (N:70)	V (N:208)	
Coherent	90.0	59.1	66.9
Incoherent	10.0	40.9	33.1
Chi square 22.5345 (d.f. 1; $P < .01$)			

The suggested relationship between class position and coherence in communication, however, may be spurious since class status is known to be associated with a wide range of social phenomena. It is possible that other factors are operating which, if controlled, would erase the relationship between class status and meaningful verbal communication among these mentally ill persons, their families, and the field workers. With this idea before us we controlled the data for age, marital status, and prior psychiatric treatment, as indicated by Table 5.

The series of analyses summarized in Table 5 reveal that the imposition of controls does not erase the relationship between class status and coherence or incoherence in verbal statements. Moreover, the direction of the relationship, in each comparison, shows a disproportionately large percentage of incoherent persons in Class V.

We may ask: How may one account for this relationship? A possible answer is that the solicitants we categorize as now being

Table 5

Percentage of Solicitants Judged to be Coherent or Incoherent by Age, Marital Status, Psychiatric History, and Class

Ability to Communicate	Group				
Coherence-Incoherence	A. Age Group and Class				
	Under 31 Years of Age (N:128)		31 Years of Age and Over (N:150)		
	IV (N:38)	V (N:90)	IV (N:32)	V (N:118)	
	Coherent	92.1	68.9	87.5	51.7
	Incoherent	7.9	31.1	12.5	48.3
Chi square	7.847 (d.f. 1; P < .01)		13.375 (d.f. 1; P < .01)		
Coherence-Incoherence	B. Marital Status and Class				
	Living with Spouse (N:161)		Not Living with Spouse (N:117)		
	IV (N:49)	V (N:112)	IV (N:21)	V (N:96)	
	Coherent	95.9	71.4	76.2	44.8
	Incoherent	4.1	28.6	23.8	55.2
Chi square	12.2723 (d.f. 1; P < .01)		6.7955 (d.f. 1; P < .01)		
Coherence-Incoherence	C. Psychiatric History				
	Prior Treatment (N:108)		No Prior Treatment (N:163)		
	IV (N:30)	V (N:78)	IV (N:39)	V (N:124)	
	Coherent	80.0	46.2	97.4	69.4
	Incoherent	20.0	53.8	2.6	30.6
Chi square	10.0523 (d.f. 1; P < .01)		12.8533 (d.f. 1; P < .01)		

in Class V *have drifted* there from higher class positions as a result of their illness. This suggestion assumes that individuals who are incoherent in their communications with others are prone to be downward mobile. Class position in terms of this formulation provides the setting for movement in social space without the factor of class having etiological significance. "Downward drift" could conceivably account for the disproportionately large number of incoherent cases in Class V.¹¹ We examined the data to learn if this suggestion is appropriate.

From the viewpoint of the "downward drift" hypothesis, age may be assumed to be a rough indicator of potential social mobility. We took the position that younger people have not had as great an opportunity to drift downward (or move upward) as have older people. Younger individuals are more likely to occupy class positions that approximate those of their families of orientation than are older persons. We shall mention that when age is controlled the explanatory validity of the "downward drift" hy-

pothesis is tested *indirectly*, not *directly*.

Table 5 A bears on this point, for it presents a test of a possible relationship between class status and coherence in communication when age is controlled. The relationship between class position and coherence in the two age groups is not attributable to chance. Further refinements of the age variable as a control would prevent the computation of chi square. However, we refined the age variable and by inspection found that the direction of the relationship is consistent with our other findings. These results indicate that "downward drift" is not an adequate explanation of the disproportionately large number of incoherent cases in Class V.

We also tested "downward drift" by the use of *direct* evidence. That is, we collected detailed information on intergenerational moves of 70 individual solicitants who were the last respondents in our series of interviews. Sixty per cent of these persons have been stable between the parental and the present generation; 33 per cent have been mobile upward; the remaining 7 per cent have been mobile downward when compared with the parental generation. The relative

11. August B. Hollingshead and Fredrick C. Redlich, *op. cit.*, 244-248.

infrequency of downward mobility is particularly apparent among the Class V patients. There are 41 patients in Class V, and only 2 have moved into this class from a higher one. Though we are dealing with small numbers, these data reinforce the inference drawn from Table 5 A pertaining to the inapplicability of the "downward drift" hypothesis as an explanation of the concentration of incoherent speech patterns in Class V.

From a medical viewpoint the most important factor to control in testing for a possible association between class position and clarity in communication is the diagnoses made of the solicitants by the examining psychiatrists. This is important because we showed, in Table 3, that a significant relationship exists between incoherence and schizophrenia. Table 6 bears on this point.

Table 6

Percentage of Solicitants Judged to be Coherent or Incoherent Categorized by Schizophrenia and Class

Communication	Schizophrenic		*Not Schizophrenic	
	IV (N:16)	V (N:74)	IV (N:42)	V (N:106)
Coherent	81.2	50.0	95.2	64.2
Incoherent	18.8	50.0	4.8	35.8
Chi square	5.2031		14.7399	
	(d.f. 1; $P < .05$)		(d.f. 1; $P < .01$)	

*Not schizophrenic: Manic depressives; acute and chronic brain syndromes; psychophysiologic; psychoneurosis; mental deficiency; personality disorders; epileptics.

The data in Table 6 indicate that class status and coherence or incoherence are related. The same relationship exists among the subjects suffering from schizophrenia, and those without schizophrenia: the Class V patients consistently tend to be incoherent.

It might be argued that the association between class status and confused speech is a by-product of methodological artifacts. Could it be that the more frequent attribution of incoherence in communication to persons in Class V in comparison with those in Class IV is due to biases operating in the situation of the interview? This question implies that the interviewer's judgment of coherence was contaminated in the direction which would verify the hypothesis we are testing. We checked this implication by de-

termining whether the interviewers or the patients' families made the judgment of coherence or incoherence in the patients' speech. These judgments are summarized in Table 7.

Table 7

Percentage of Solicitants Judged to be Coherent or Incoherent Categorized by Source of Judgment of Coherence and Class

Communication	Source of Judgment			
	Interviewer		Other Member of Family	
	IV (N:50)	V (N:108)	IV (N:19)	V (N:99)
Coherent	96.0	76.9	73.7	39.4
Incoherent	4.0	23.1	26.3	60.6
Chi square	8.8444		7.5757	
	(d.f. 1; $P < .01$)		(d.f. 1; $P < .01$)	

The data on the subjects whose coherence was assessed by an immediate member of the family are consistent with our other findings. It makes no difference who made the judgment of coherence; class status and confused speech are associated. Furthermore, as Table 3 indicated, a relationship exists between coherence and schizophrenia—a fact which suggests that coherence or incoherence is a general characteristic of the solicitant and not attributable to the peculiarities of the interview situation.

DISCUSSION AND CONCLUSIONS

A relationship between class status and meaningful communication by mentally ill persons is demonstrated by the data we have presented. This relationship maintains its stability when we control for age, marital status, prior psychiatric treatment, and diagnosis. The relationship between class status and disordered speech is marked for solicitants with schizophrenia. Explanations of this observed relationship in terms of the "downward drift" hypothesis may be rejected. Likewise, our analysis indicates that the social distance separating interviewer from subject fails to explain the unequal distributions we have observed. Explanations need to be sought elsewhere.

We are aware of the possibility that processes intervening between the emergence of

communicative problems and the request for psychiatric treatment may serve to explain the differences in the clarity of speech in the two social classes we have included in this analysis. Our understanding of the relationship between class and culture in Puerto Rico and the dynamics of psychiatric referral, whereby an individual becomes a mental patient, leads us to predict, however, that the differences observed should not be attributed to this factor. This understanding is predicated upon a number of considerations, one of which is the following: the data on the class subcultures in the first part of this report indicate that Class IV persons enjoy a distinctive advantage in education over the persons in Class V. Because of their superior education, Class IV persons are more likely to be aware of the role of the psychiatrist and the services that psychiatric clinics offer. Awareness of psychiatric facilities, we assume, leads persons to seek psychiatric care when they believe it is needed. This awareness is greater in Class IV than in Class V.

In effect, we believe that the processes that intervene between the development of dramatic speech pathologies and the request for psychiatric care tend to work against the class differences discovered in this analysis. A Class V individual who is incoherent is less likely than a Class IV individual,

similarly afflicted with unclear speech, to go to a psychiatric hospital for treatment. Selective processes, we think, tend to under-represent, in the psychiatric agencies we studied, Class V individuals given to garbled utterances.¹²

Another interpretation returns us to our point of departure, namely, that incoherence is a pathology woven into the subcultures of the different classes. Class V individuals live in dismal and wretched environments with little relief from the incessant problems of poverty from birth to death. The social and cultural resources available to Class V persons for the solution of their problems are limited. Stressful problems tend to be cumulative. As one Class V person stated, "We die on the installment plan, slowly." The debilitating impact of successive life problems hits "the man lowest down" the hardest.

Incoherence in communication may be a social-psychological reaction to sociocultural stress. The afflicted individual moves from an unpleasant world into an unreal world of fictions. These fictions may be equally unpleasant. Class V individuals are trapped.

12. For a discussion of the problems involved in this area see John A. Clausen, "The Sociology of Mental Illness," in Robert K. Merton, Leonard Broom, and Leonard S. Cottrell, Jr. (eds.) *Sociology Today* (New York: Basic Books, Inc., 1959), pp. 502-504.

DEFENSIVENESS IN ALCOHOLICS: MEASURES BASED ON THE MINNESOTA MULTIPHASIC PERSONALITY INVENTORY

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AIM OF THE STUDY

It is the aim of the present study¹ to

1. From the Department of Psychiatry, The University of Washington School of Medicine, Seattle, Washington. This investigation was supported in part by Senior Research Fellowship SF-262-C from the Public Health Service and in part by the State of Washington Initiative 171 Funds for Research in Biology and Medicine.

assess the usefulness of certain Minnesota Multiphasic Personality Inventory scales to measure denial or defensiveness among active and inactive alcoholics.²

The problem arose out of a larger study

2. The term "active alcoholic" refers to alcoholics who were still drinking heavily at the time of the study. "Inactive alcoholics" refers to alcoholics who had ceased drinking.